

## CLAIMS:

1. A method for reducing motion blur of images of a video signal shown on a hold-type display (101), comprising:
  - estimating (1102) motion vectors of moving components in said images of said video signal;
  - 5 - band-pass filtering (1100, 1101) said video signal with respect to a spatial frequency domain, wherein said band-pass filtering at least partially depends on said estimated motion vectors, and wherein with increasing length of said estimated motion vectors, the passband of said band-pass filtering adaptively shifts from high spatial frequencies to medium spatial frequencies; and
  - 10 - combining (1104) said video signal and said band-pass filtered video signal to produce an input video signal for said hold-type display.
2. The method according to claim 1, wherein said band-pass filtering comprises low-pass filtering and anti-blur filtering in cascaded form.
- 15 3. The method according to claim 2, wherein said anti-blur filtering is performed with an anti-blur filter that approximates an inverted low-pass filter.
4. The method according to any of the claims 2-3, wherein said anti-blur filtering  
20 is performed with an anti-blur filter, and wherein said anti-blur filter is a one-dimensional filter with fixed filter coefficients and a variable tap spacing that depends on said length of said estimated motion vectors.
5. The method according to any of the claims 2-4, wherein said anti-blur filtering  
25 is performed in the direction of said estimated motion vectors.
6. The method according to any of the claims 2-5, wherein said low-pass filtering is performed in the direction of said estimated motion vectors.

7. The method according to any of the claims 2-5, wherein said low-pass filtering is performed both in a direction perpendicular and in a direction parallel to the direction of said estimated motion vectors.
- 5 8. The method according to any of the claims 2-7, wherein said low-pass filtering is at least partially implemented by an interpolation (1100) of samples of said images of said video signal.
9. The method according to any of the claims 1-8, wherein said band-pass  
10 filtering of said video signal comprises:  
- interpolating (1100) samples of said images of said video signal to obtain interpolated samples;  
- multiplying (1101) said interpolated samples with respective anti-blur filter coefficients and summing (1104) the products to obtain samples of images of said band-pass  
15 filtered video signal.
10. The method according to claim 9, wherein said anti-blur filter is a 1D anti-blur filter that is rotated according to the direction of said estimated motion vectors, and wherein said samples of said images of said video signals are interpolated to the positions of the taps  
20 of said rotated anti-blur filter.
11. The method according to any of the claims 9-10, wherein said anti-blur filter coefficients are independent of said estimated motion vectors.
- 25 12. The method according to any of the claims 9-11, wherein the spacing of said anti-blur filter coefficients depends on the length of said estimated motion vectors.
13. The method according to any of the claims 10-12, wherein said samples of said images of said video signal that are interpolated are located close to lines that  
30 interconnect the filter taps of said rotated anti-blur filter.
14. The method according to any of the claims 10-12, wherein said samples of said images of said video signal that are interpolated are located in a region that perpendicularly extends to both sides from said lines that interconnect the filter taps of said

rotated anti-blur filter.

15. The method according to any of the claims 9-14, wherein said interpolation comprises an at least partial averaging of said samples of said images of said video signal.

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16. The method according to claim 1, wherein said band-pass filtering of said video signal comprises:

- determining 2D band-pass filters from a pre-defined set of 2D band-pass filters in dependence on said estimated motion vectors; and
- 10 - filtering said video signal with said selected 2D band-pass filters.

17. The method according to claim 16, wherein said determining of said 2D band-pass filters comprises interpolating 2D band-pass filters from 2D band-pass filters of said pre-defined set of 2D band-pass filters.

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18. The method according to any of the claims 1-17, wherein said band-pass filtered video signal is further subject to noise suppression processing (1103) before being combined with said video signal.

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19. A computer program with instructions operable to cause a processor to perform the method steps of any of the claims 1-18.

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A computer program product comprising a computer program with instructions operable to cause a processor to perform the method steps of any of the claims 1-

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21. A device for reducing motion blur of images of a video signal shown on a hold-type display (101), comprising:

- means (1102) arranged for estimating motion vectors of moving components in said images of said video signal;
- 30 - means (1100, 1101) arranged for band-pass filtering said video signal with respect to a spatial frequency domain, wherein said band-pass filtering at least partially depends on said estimated motion vectors, and wherein with increasing length of said estimated motion vectors, the pass-band of said band-pass filtering adaptively shifts from

high spatial frequencies to medium spatial frequencies; and

- means (1104) for combining said video signal and said band-pass filtered video signal to produce an input video signal for said hold-type display.